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Endoscopic assisted modified turbinoplasty with mucosal flap

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Dear Sirs,

We read with interest the article 'Endoscopic assisted modified turbinoplasty with mucosal flap'.[1] We have been using the same technique, adapted from P J Wormald's powered inferior turbinoplasty method, since 2006. However, our method incorporates two notable differences which we would like to highlight to the readership.

Firstly, the nasal cavity is prepared with a modified Moffett's solution (1 ml 10 per cent cocaine, 1 ml 1:1000 adrenaline, 2 ml 8.4 per cent $NaHCO_3$ and 5 ml normal saline), but we do not infiltrate the turbinates. There have been rare cases, described in the literature, of blindness after turbinate injection.[2] These cases related to steroid injection and were thought to occur due to intra-arterial infiltration and subsequent embolisation of the retinal artery.[3] Vascular events could be caused by retrograde flow, following intra-arterial injection into the anterior or posterior ethmoidal arteries, into the ophthalmic artery. In a canine model, it has been shown that 1:100 000 adrenaline, used alone or in combination with lidocaine, produces transient vasospasm in the retinal vasculature.[3] Although the above-mentioned case reports described steroid injection into the turbinates, we are concerned that the injection of vasoconstrictors, particularly via dental syringes (which are frequently employed in nasal surgery and which do not permit 'draw back'), may have the same devastating consequences. Indeed, a case has been reported of blindness following vasoconstrictor injection during septoplasty.[4] Furthermore, a randomised, controlled trial has demonstrated increased bleeding during turbinate surgery after injection of the turbinates with 2 per cent xylocaine plus 1:80 000 adrenaline, compared with controls.[5] Such treatment seems ineffective in reducing intra-operative blood loss, and therefore constitutes an unnecessary risk.

Secondly, we do not routinely pack the nose. Instead, a roll of Surgicel® is placed along the length of the inferior turbinate, under the mucosal flap, which helps to secure this over the turbinate base and achieve haemostasis. Routine packing causes considerable discomfort for patients,[6] and the requirement for removal 24 hours later prevents the handling of such patients as day cases.

We have undertaken 128 cases, of which 11 needed packing. When packing has been required, Nasopore Forte (Polyganics, Groningen, Germany) is used as this does not require removal and thus allows the patient to return home on the day of surgery with their dressing in situ. In our series, one patient required nasal sphenopalatine artery ligation, although in this case the threshold for surgical intervention was perhaps lowered as the patient was positive for both human immunodeficiency virus and hepatitis C virus. Two patients were readmitted after being discharged and required Merocel packing (Medtronic, Mystic, Connecticut, USA). We believe that routine packing causes unnecessary morbidity and that turbinoplasty may be safely performed in a day-case setting.

Since changing our technique for turbinate surgery, we have not undertaken any revisions. Although we cannot be sure that our patients have not developed recurrence of nasal symptoms, due to the restricted nature of follow up within the National Health Service, we can hopefully infer from the lack of revision cases that improvement has been maintained.

We thank the authors for their excellent description of what we agree is an effective, safe technique of turbinate reduction, but would urge the readership to refrain from infiltration and routine packing of noses post-operatively.

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